

ABSTRACT

A multi-piece solid golf ball is provided which is improved in spin, feeling, and durability, prevents its trajectory from rising or dropping, and offers an increased flight distance.

A multi-piece solid golf ball comprising a solid core and a cover of two inner and outer layers surrounding the core wherein the outer cover layer has a surface formed with a plurality of dimples is characterized in that a product of the Shore D hardness of the inner cover layer multiplied by the Shore D hardness of the outer cover layer and a proportion V_R (%) of the total of the volumes of dimple spaces each defined below a plane circumscribed by the dimple edge to the overall volume of a phantom sphere given on the assumption that the golf ball surface is free of dimples satisfy any one of the following combinations (1) to (5):

(1) the product of Shore D hardnesses of inner and outer cover layers: 1,500 to less than 2,000

$$V_R: 0.8 \text{ to } 1.1\%$$

(2) the product of Shore D hardnesses of inner and outer cover layers: 2,000 to less than 2,500

$$V_R: 0.75 \text{ to } 1.05\%$$

(3) the product of Shore D hardnesses of inner and outer cover layers: 2,500 to less than 3,000

$$V_R: 0.7 \text{ to } 1\%$$

(4) the product of Shore D hardnesses of inner and outer cover layers: 3,000 to less than 3,500

$$V_R: 0.65 \text{ to } 0.95\%$$

(5) the product of Shore D hardnesses of inner and outer cover layers: 3,500 to 4,000

$$V_R: 0.6 \text{ to } 0.9\%,$$

and the dimples include at least three types of dimples which are different in at least one of a diameter, a depth, and a value V_0 which is the volume of one dimple space defined below a plane circumscribed by the dimple edge divided by the volume of a cylinder whose bottom is

the plane and whose height is the maximum depth of the
dimple from the bottom.